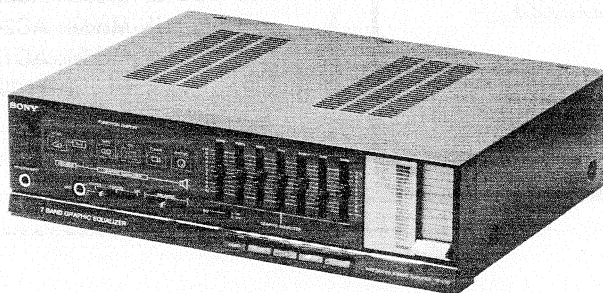


# TA-V50

## SERVICE MANUAL

*AEP Model  
UK Model  
E Model*



TA-V50 IS AMPLIFIER UNIT OF "LBT-V50W".

### SPECIFICATIONS

Continuous RMS power output (AEP, G-AEP, UK model)

50 + 50 watts

(6 ohms, at 1 kHz, 0.5% THD)

40 + 40 watts

(6 ohms, 40 Hz - 20 kHz, 0.5% THD)

Music power output (E model)

160 W (6 ohms, 5% THD)

Peak music power output (E model)

320 W (6 ohms)

Power requirements: AEP model: 220V ac, 50/60Hz

UK model: 240V ac, 50/60Hz

E model: 120, 220 or 240V ac  
adjustable, 50/60Hz

Power consumption: AEP model: 110 watts

UK model: 230 watts

E model: 110 watts

AEP model: 2 unswitched, 100 watts max.

UK model: 2 switched, 100 watts max.

E model: 2 unswitched, 100 watts max.

Dimensions: Approx. 355x98x290 mm (w/h/d)  
(14x4<sup>1</sup>/<sub>8</sub> x 9<sup>7</sup>/<sub>8</sub> inches)

incl. projecting parts and controls

Weight: Approx. 5.8 kg (11 lb 15 oz) net

Design and specifications subject to change without notice.

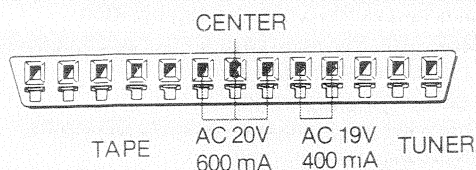
Inputs	Sensitivity	Impedance
PHONO (phono jacks)	2 mV	50 kilohms
CD, VIDEO (AUDIO IN) (phono jacks)	150 mV	50 kilohms
MIC (phone jack)	2 mV	20 kilohms

#### Outputs

HEADPHONES (stereo phone jack)	Accepts headphones of 8 ohms or more
SPEAKER	Accepts speakers of 6 to 16 ohms

SYSTEM CONTROL 1 terminal (13-pin)

SYSTEM CONTROL 2 terminal (13-pin)



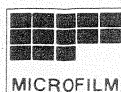
Frequency response

PHONO: RIAA curve  $\pm 0.5$  dB

CD, VIDEO (AUDIO IN):


15 Hz - 50 kHz  $\pm 0$  dB

MIC: 100 Hz - 10 kHz  $\pm 0$  dB



MICROFILM

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

# INTEGRATED STEREO AMPLIFIER

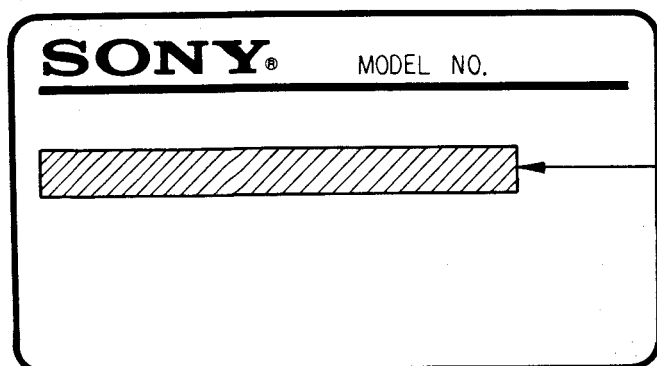
# SONY®



# TA-V50

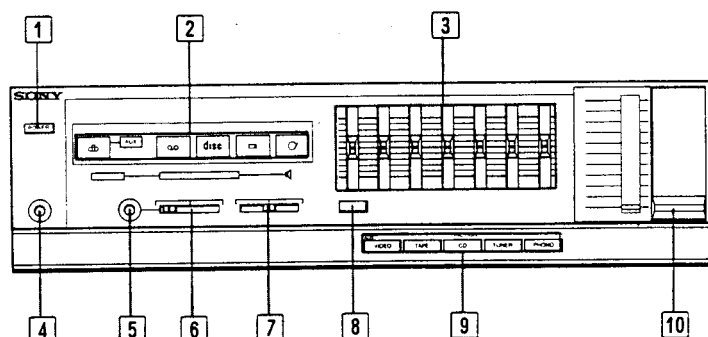
## MODEL IDENTIFICATION

— Specification Label —



AEP, G-AEP Model: AC220V 50/60Hz 110W  
UK Model: AC240V 50/60Hz 230W  
E Model: AC120/220/240V 50/60Hz 110W

## FUNCTION OF CONTROLS



### 1 POWER switch

Press the switch (ON) to turn on the power of the stereo system. To turn it off, press the switch again (OFF).

### 2 FUNCTION indicators

The indicator lights to show the input source in use.

### 3 GRAPHIC EQUALIZER controls

To equalize the listening or recording sound, slide each control upwards to increase the level of the frequency band, and downwards to decrease the level.

**100 Hz:** Use to boost or cut the bass.

**250 Hz:** Use to adjust the middle and low frequency range.

**500 Hz:** Use to adjust the middle frequency range.

**1 kHz:** Use to provide more presence of vocals.

**3 kHz:** Use to adjust the brightness of sound.

**6 kHz:** Use to adjust the middle and high frequency range.

**14 kHz:** This control effects general treble. Slide downwards to reduce high frequency noise, such as tape hiss.

To record or listen to the sound with the original tone quality, set all the controls at their center positions.

### 4 HEADPHONES jack (stereo phone jack)

### 5 MIC (microphone) jack (phone jack)

Connect a microphone for microphone mixing.

### 6 MIXING control

Adjusts the balance between the volume of the microphone and the program source. Slide the control towards MIC to increase microphone volume, and towards SOURCE to increase source volume. When not in use for microphone mixing, slide this control fully to SOURCE.

### 7 BALANCE control

Adjusts the balance of the left and right channel output levels.

### 8 GRAPHIC EQUALIZER switch

Depress this switch (ON) to activate the graphic equalizer controls. Press it again (OFF) to obtain the original tone quality.

### 9 FUNCTION select buttons

Press the desired program source button.

**VIDEO/AUX:** For video programs or another source connected to VIDEO inputs.

**TAPE:** For the tape programs.

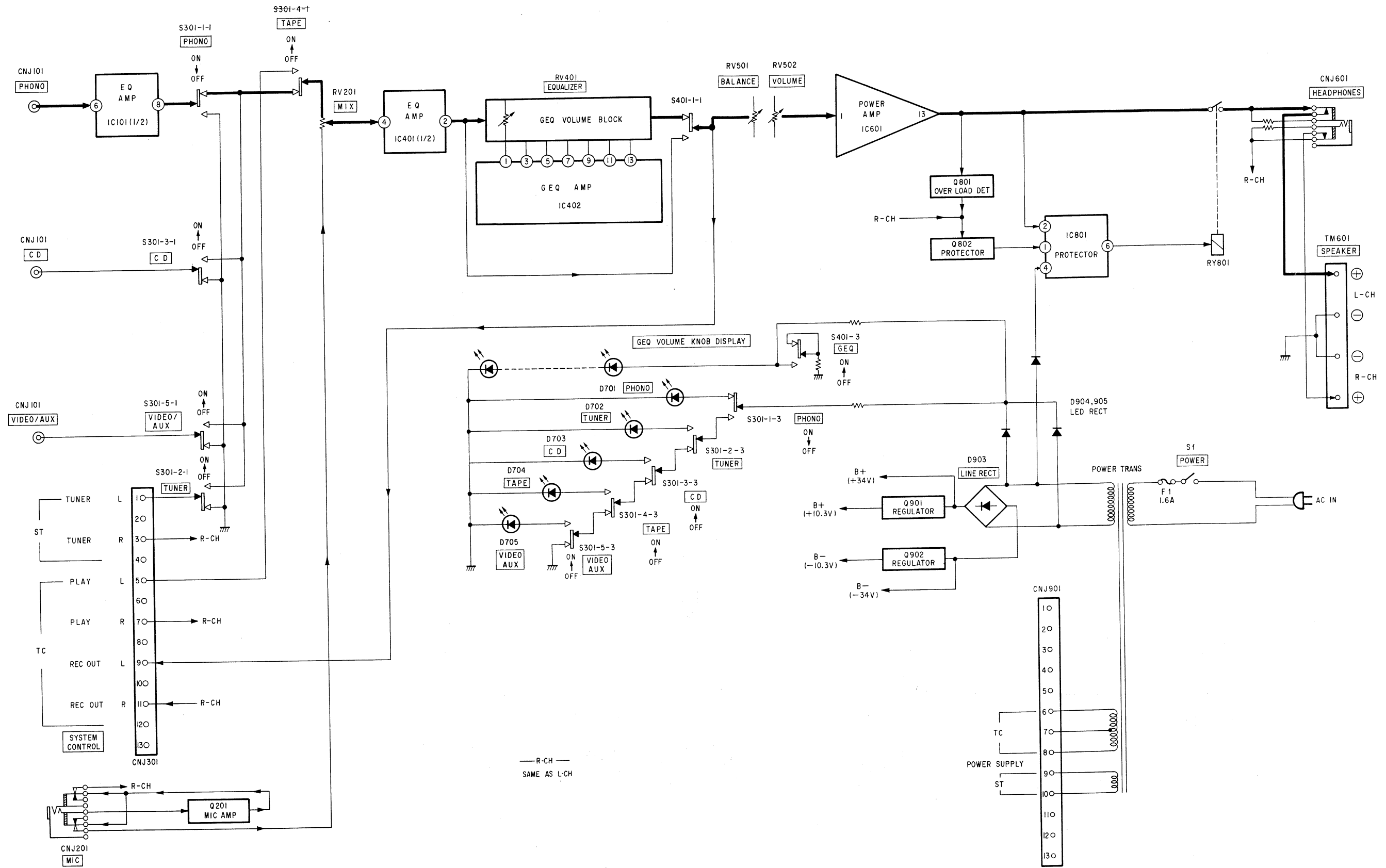
**CD:** For the programs connected to CD inputs.

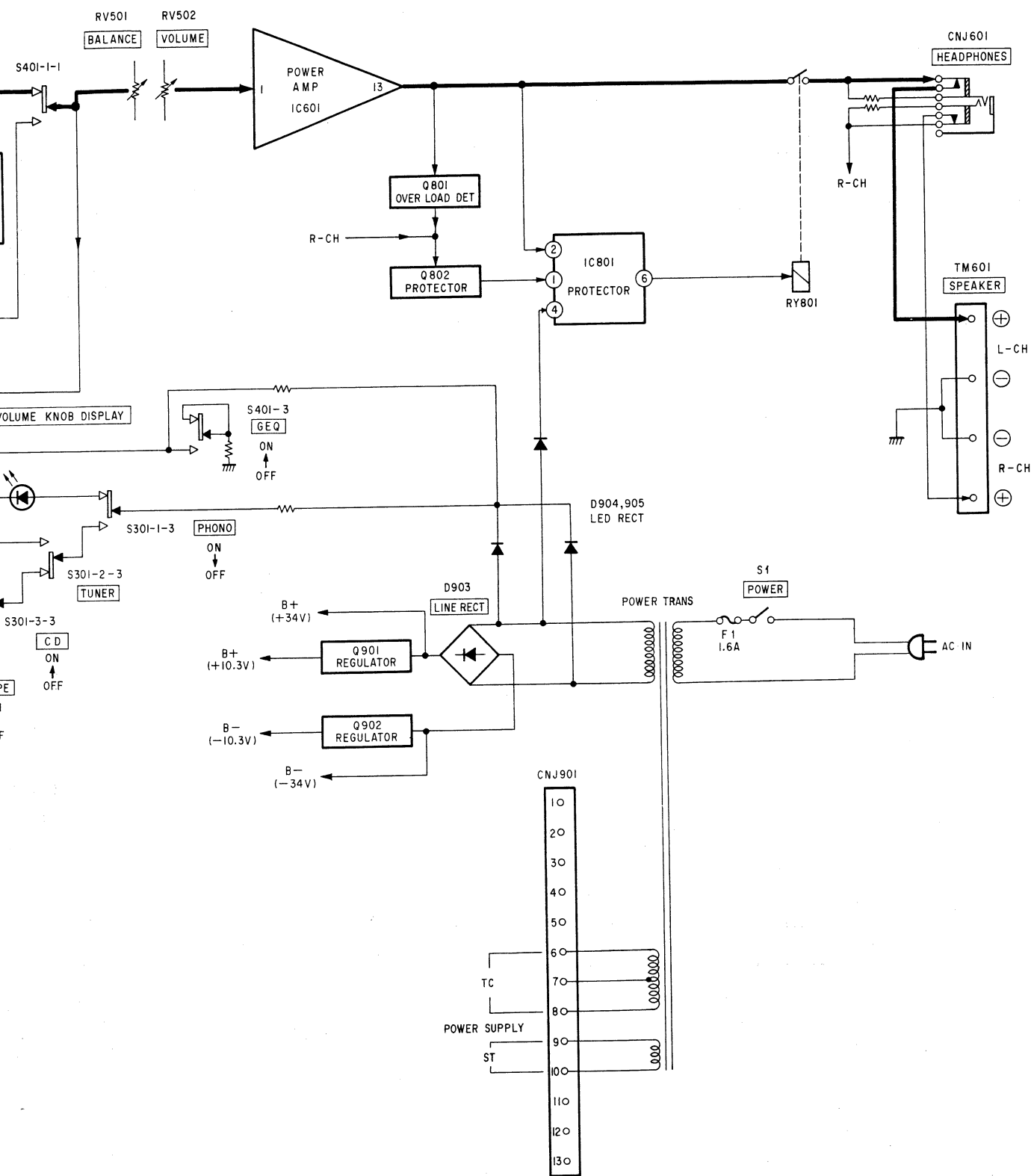
**TUNER:** For radio programs.

**PHONO:** For disc programs connected to PHONO inputs.

### 10 VOLUME control

# SECTION 1 BLOCK DIAGRAM





SEMICONDUCTORS

<b>BA4561</b> 	<b>2SC2603</b> <b>DTA124ES'</b> 
<b>LA3605</b>  (Top view)	<b>1S953</b> <b>10E2</b> <b>HZ11A3L</b> 
<b>STK-4028X</b> <b>STK-4034X</b>  Wiring side view	<b>ISS 202</b> 
<b>μPC1237H</b> 	<b>RBV602</b> 
<b>2SB1094</b> <b>2SD1585</b> 	
<b>2SC1841</b> 	

Note on Schematic Diagram.

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- — : signal path (FUNCTION PHONO)
- - - - : signal path (GEQ ON)

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

- Components for right channel have same values as for left channel. Reference numbers are coded from
- : nonflammable resistor.

• Switch

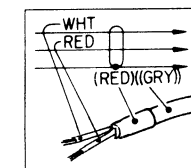
Ref. No.	Switch	Position
S301	FUNCTION	PHONO
S401	EQ	ON

- — : B+ bus.
- - - - : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a VOM (50 k $\Omega$ /V).

Note on Mounting Diagram

Note:

- Color code of sleeving over the end of the jacket.



- — : parts extracted from the component side.



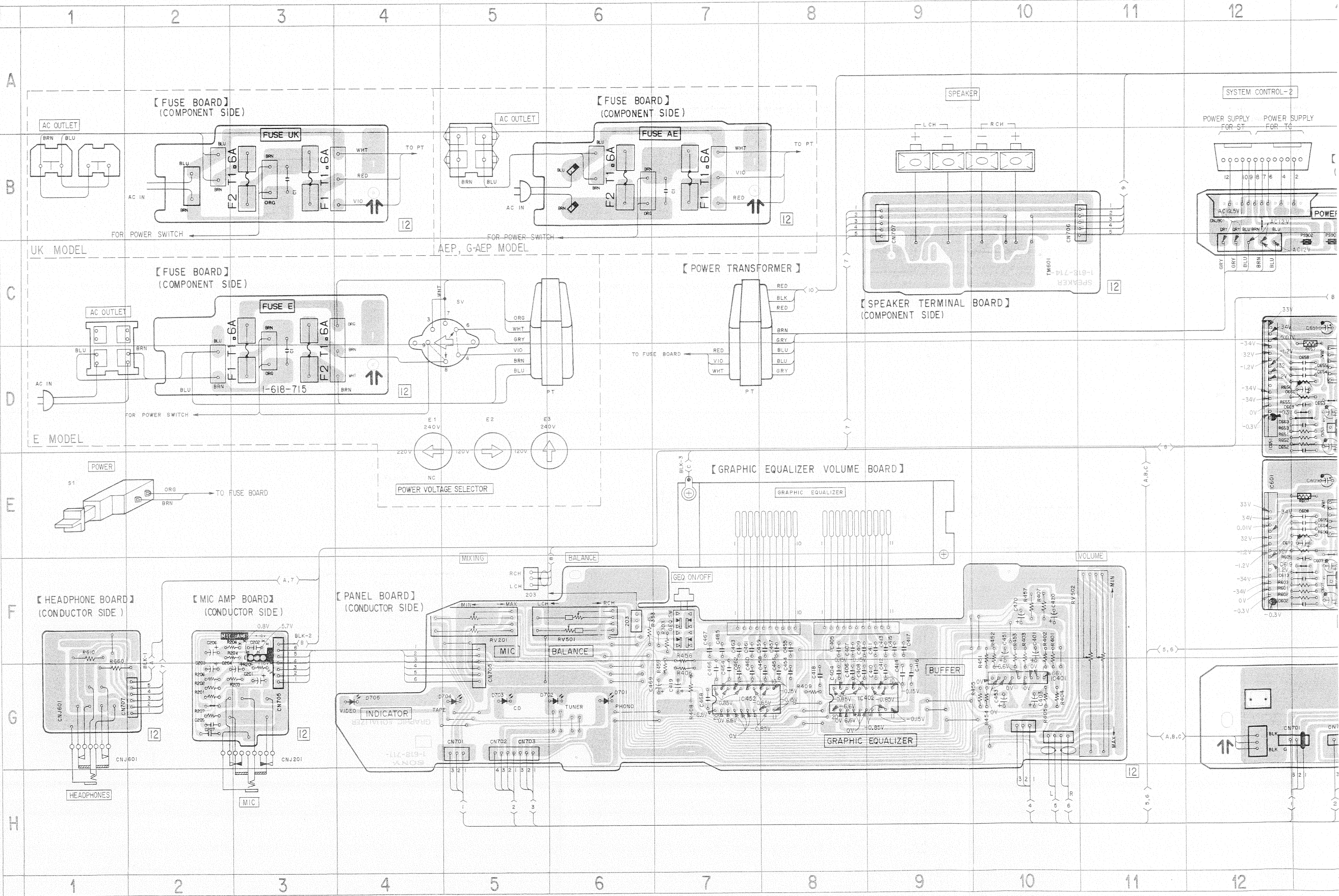
2-1. MOUNTING DIAGRAM  
— Conductor Side —

SECTION 2  
DIAGRAMS

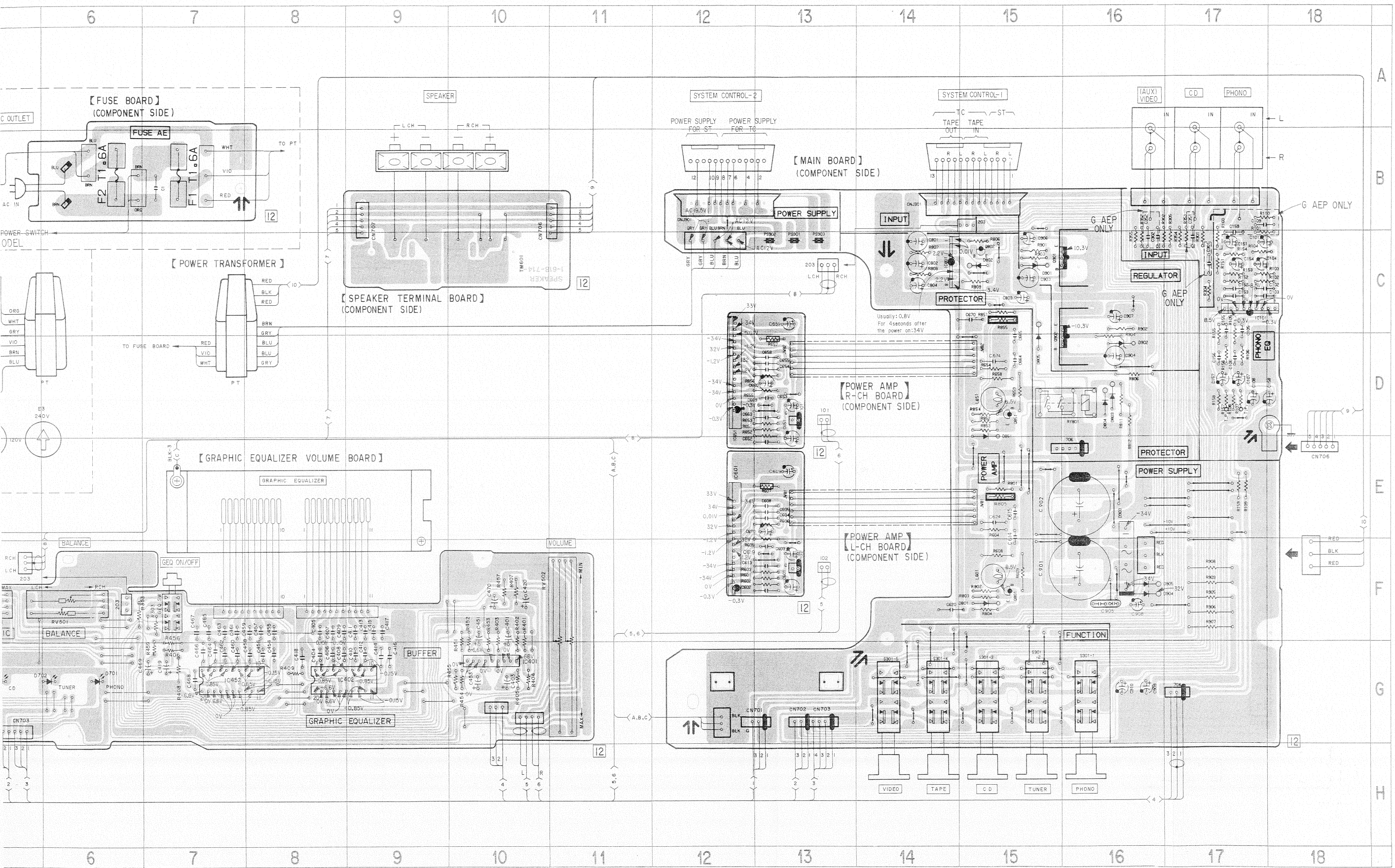
- Refer to page 5 for semiconductor lead layouts.
- Refer to page 5 for notes.

• SEMICONDUCTOR  
LOCATION

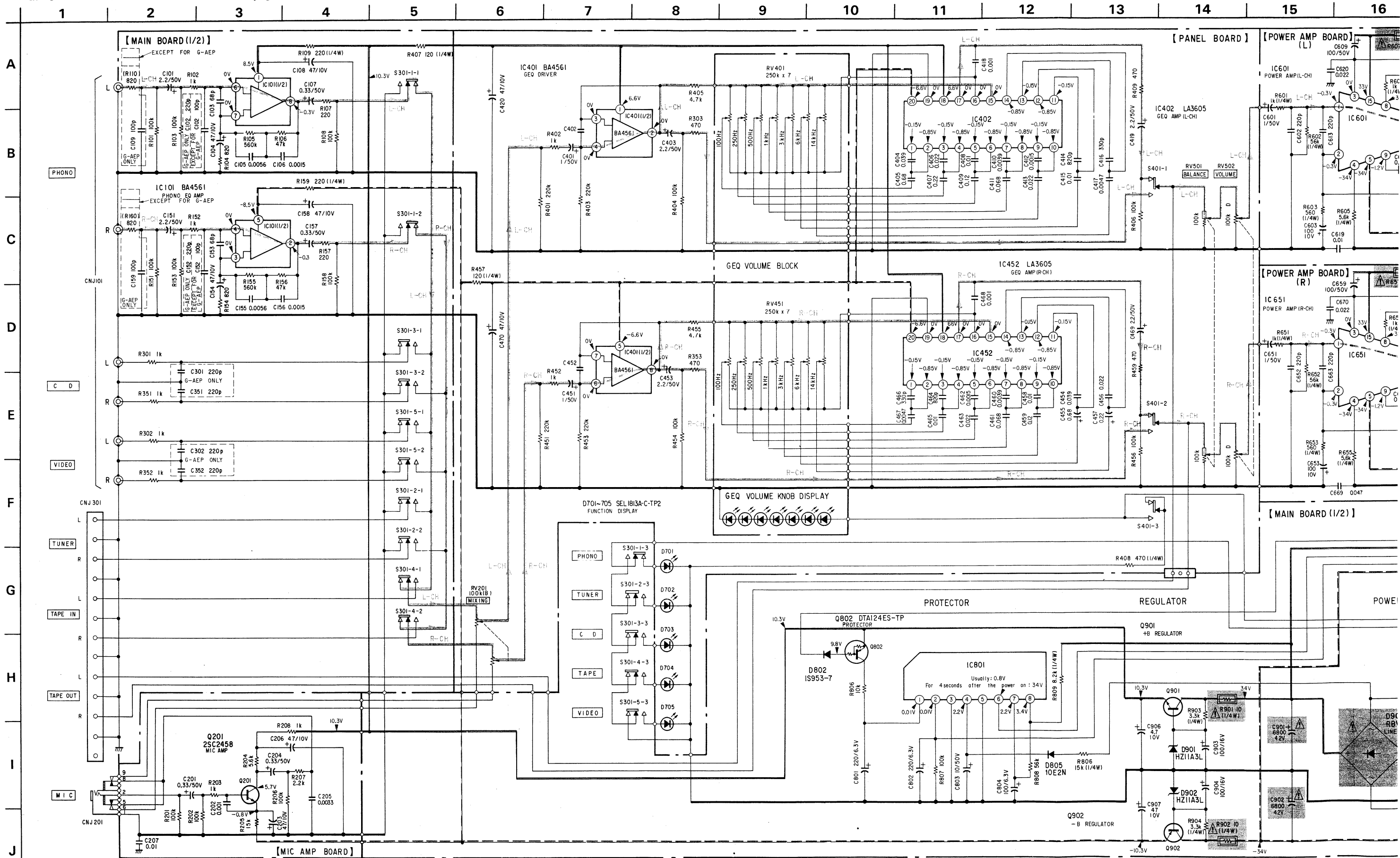
Ref. No.	Location
IC101	C-17
IC401	G-10
IC402	G-8
IC452	G-7
IC601	E-12
IC651	D-12
IC801	C-14
Q201	F-3
Q801	F-15
Q802	C-15
Q851	D-15
Q901	C-15
Q902	D-15
D701	G-6
D702	G-6
D703	G-5
D704	G-5
D705	G-4
D801	F-15
D802	C-15
D803	D-16
D804	D-16
D805	D-15
D851	D-15
D901	C-15
D902	D-16
D903	F-16
D904	F-16
D905	F-16



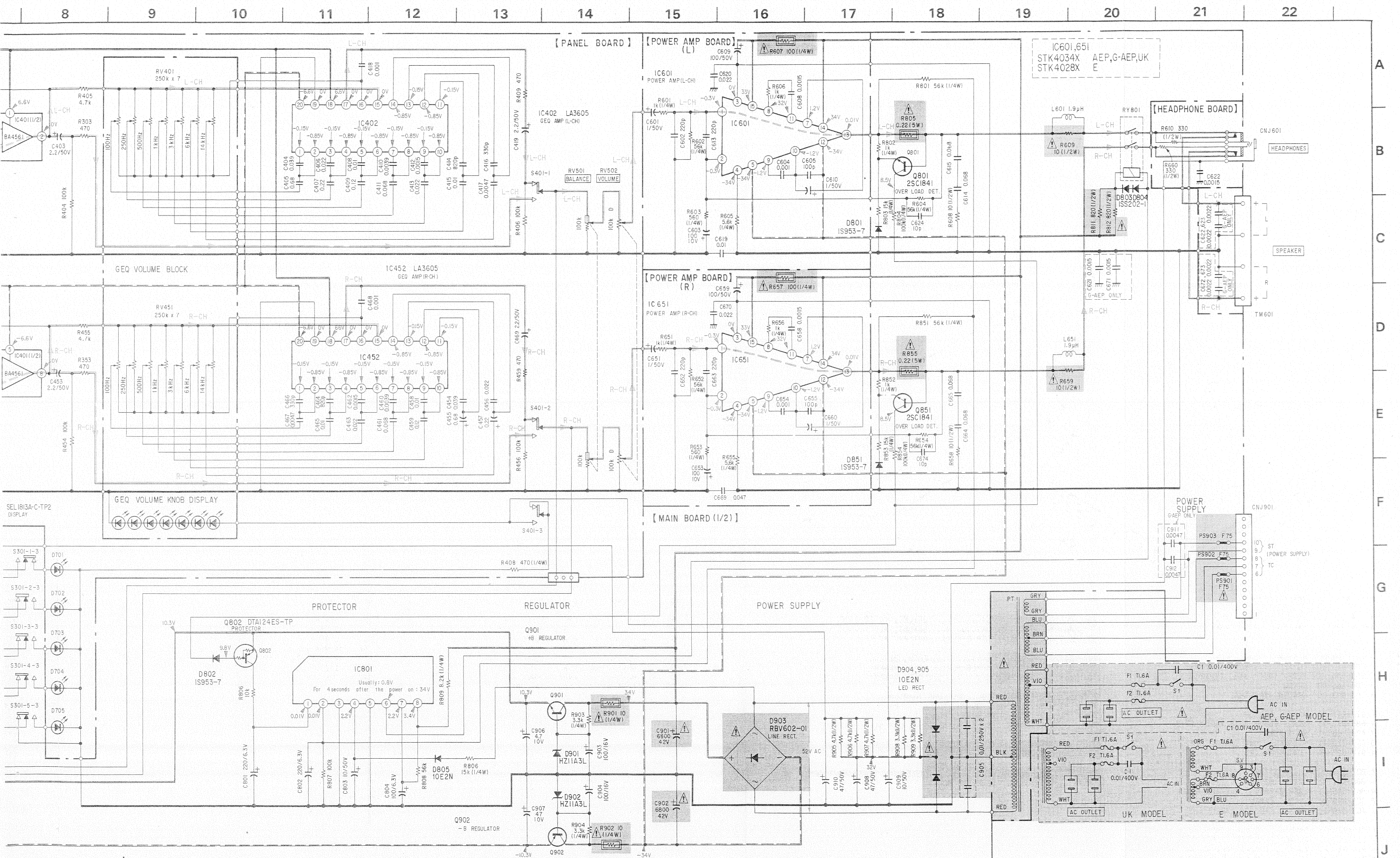




**1-2. SCHEMATIC DIAGRAM** • Refer to page 5 for notes.










SECTION 3  
EXPLODED VIEWS

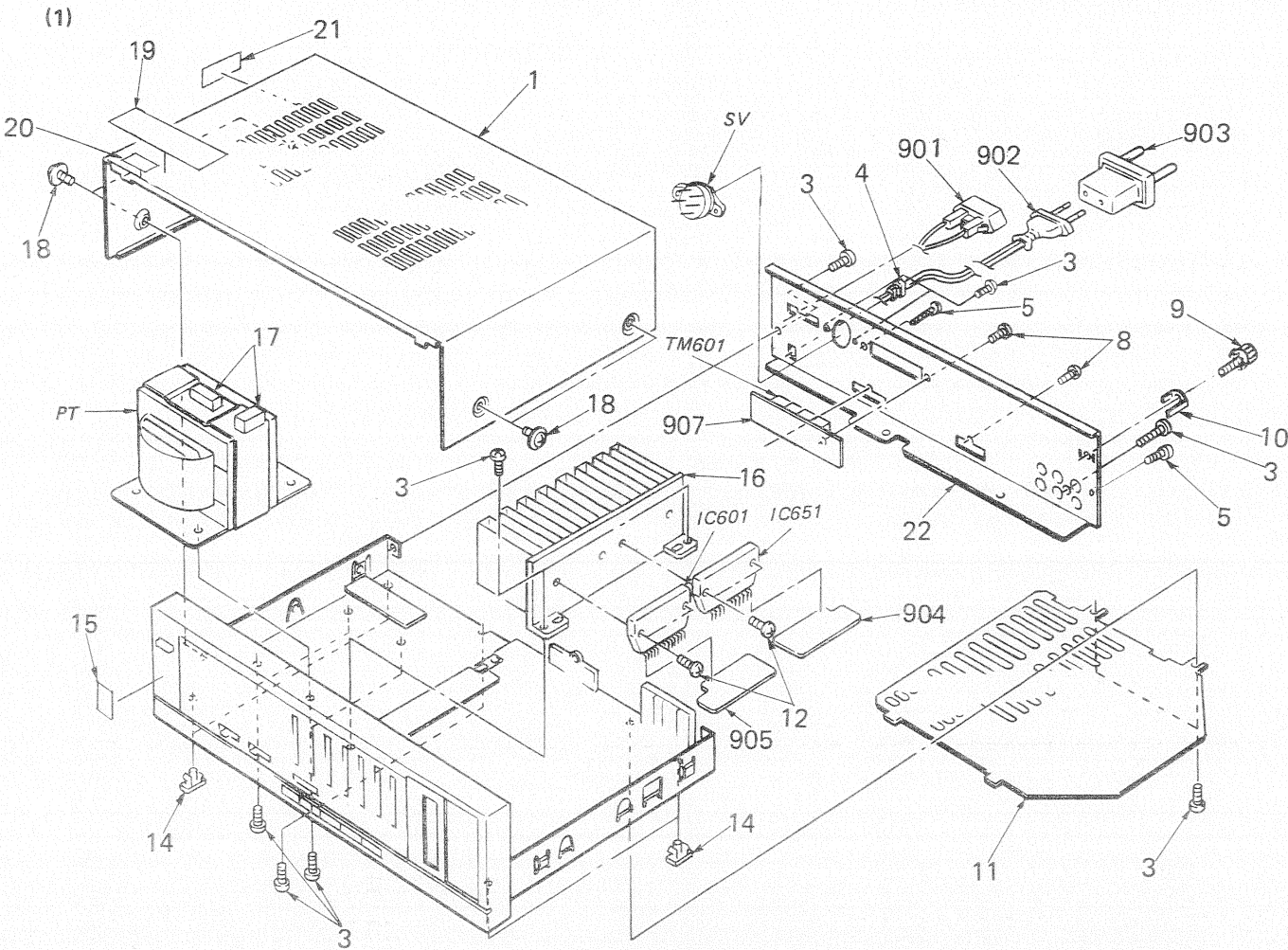
NOTE:











The mechanical parts with no reference number in the exploded views are not supplied.

The construction parts of an assembled part are indicated with a collation number in the remark column.

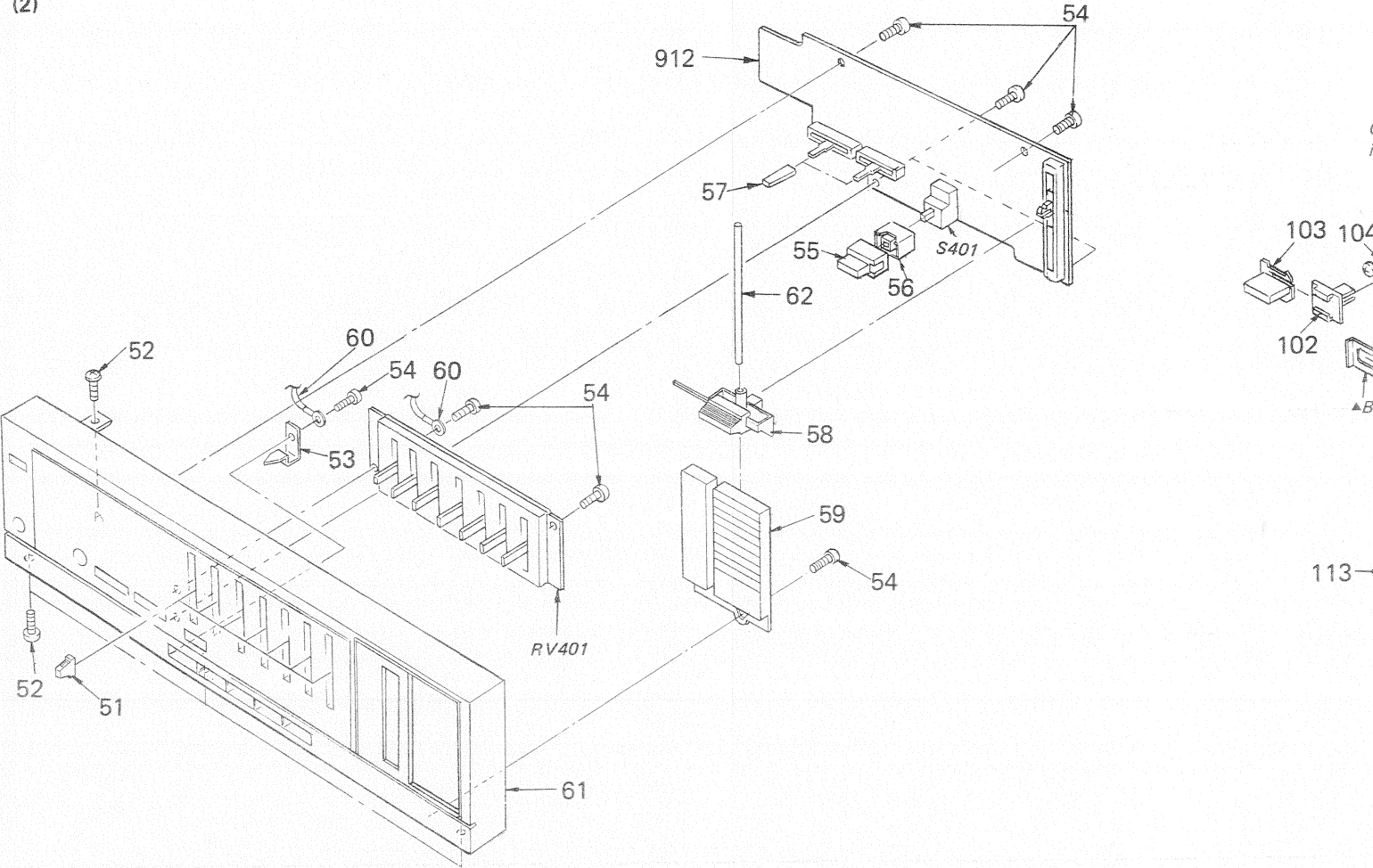
Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.



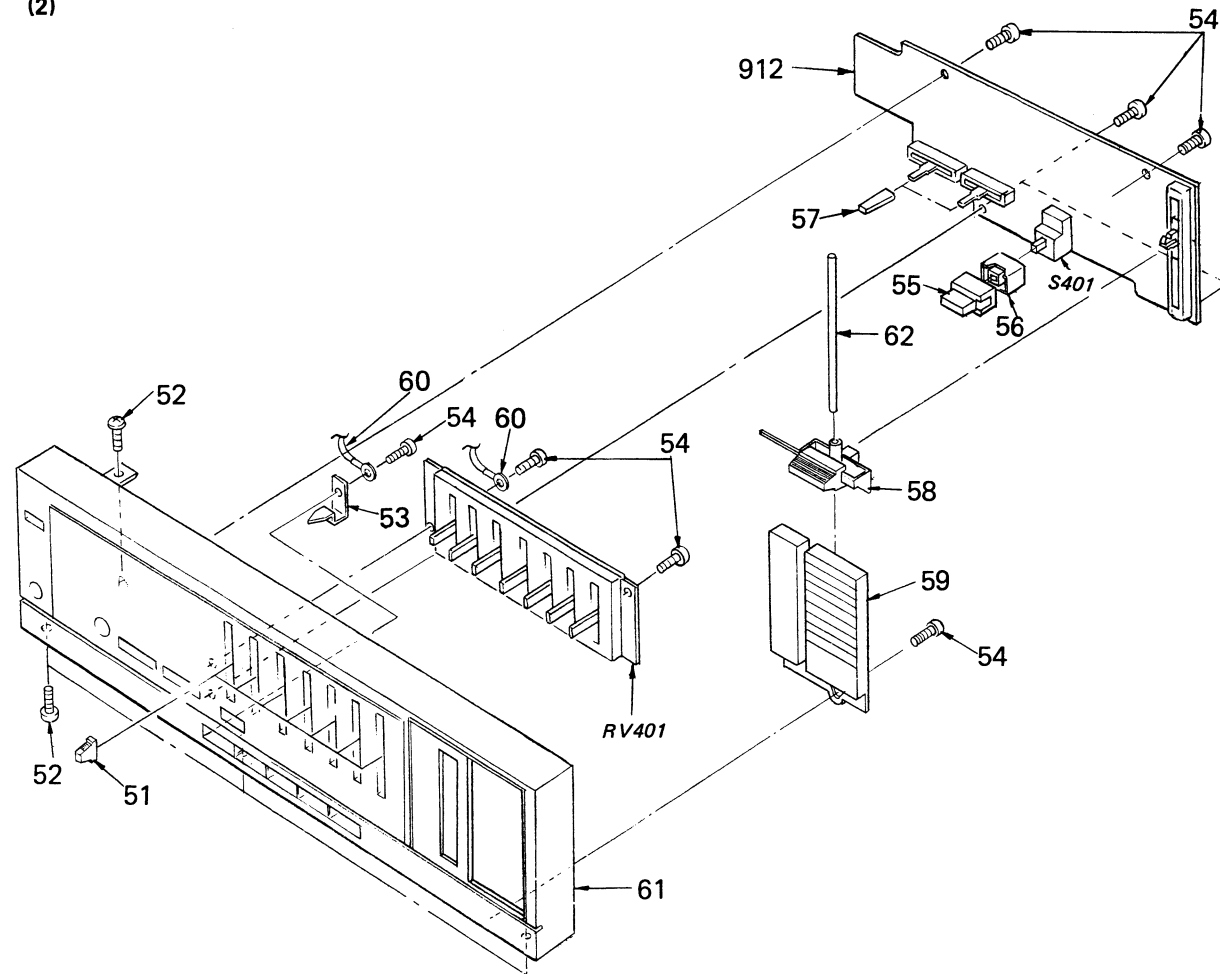
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	4-914-029-01 4-914-029-11	(G-AEP,E,UK)...CASE (AEP).....CASE		901	 1-526-752-00  1-526-751-00  1-526-794-11	(E).....OUTLET, AC (2 GANG) (UK).....OUTLET, AC (AEP,G-AEP)...OUTLET, AC	
3	7-685-752-04	SCREW +BVTT 3X8 (S)		902	 1-551-188-XX  1-534-817-XX  1-551-884-00	(E).....CORD, POWER (AEP,G-AEP)...CORD, POWER (UK).....CORD, POWER	
4	3-703-244-00	BUSHING (2104), CORD		903	 1-526-565-00	(E)...AC PLUG ADAPTOR	
5	3-703-473-00	(G-AEP)...SCREW, TERMINAL		904	*1-618-717-11	PC BOARD, POWER IC (R)	
8	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S		905	*1-618-716-11	PC BOARD, POWER IC (L)	
9	3-706-165-00	SCREW		907	*1-618-714-11	PC BOARD, SPEAKER TERMINAL	
10	3-701-993-00	SPACER, TERMINAL		PT	 1-448-483-11 PT  1-448-482-11	(E).....TRANSFORMER, POWER (AEP,G-AEP,UK)...TRANSFORMER, POWER	
11	*4-912-117-21	PLATE, BOTTOM		SV	 1-526-576-51	(E).....SELECTOR, POWER VOLTAGE	
12	7-685-650-71	SCREW +BVTP 3X16 TYPE2 IT-3		TM601	1-536-705-21	TERMINAL BOARD (SP)	
14	X-4907-603-1	FOOT ASSY					
15	3-703-710-41	STICKER, SONY SYMBOL (12)					
16	*4-914-027-11	HEAT SINK (E)					
17	4-807-369-01	CUSHION (A)					
18	4-886-821-01	SCREW, M3 CASE					
19	4-861-045-01	(AEP,G-AEP)...CAUTION LABEL					
20	3-701-690-01	(UK)...LABEL					
21	3-703-079-21	(UK)...CAUTION LABEL					
22	*4-914-033-01 *4-914-033-11 *4-914-033-21 *4-914-033-31	(AEP).....PLATE (EXP), JACK (G-AEP)...PLATE (EXP), JACK (UK).....PLATE (EXP), JACK (E).....PLATE (EXP), JACK					

(2)

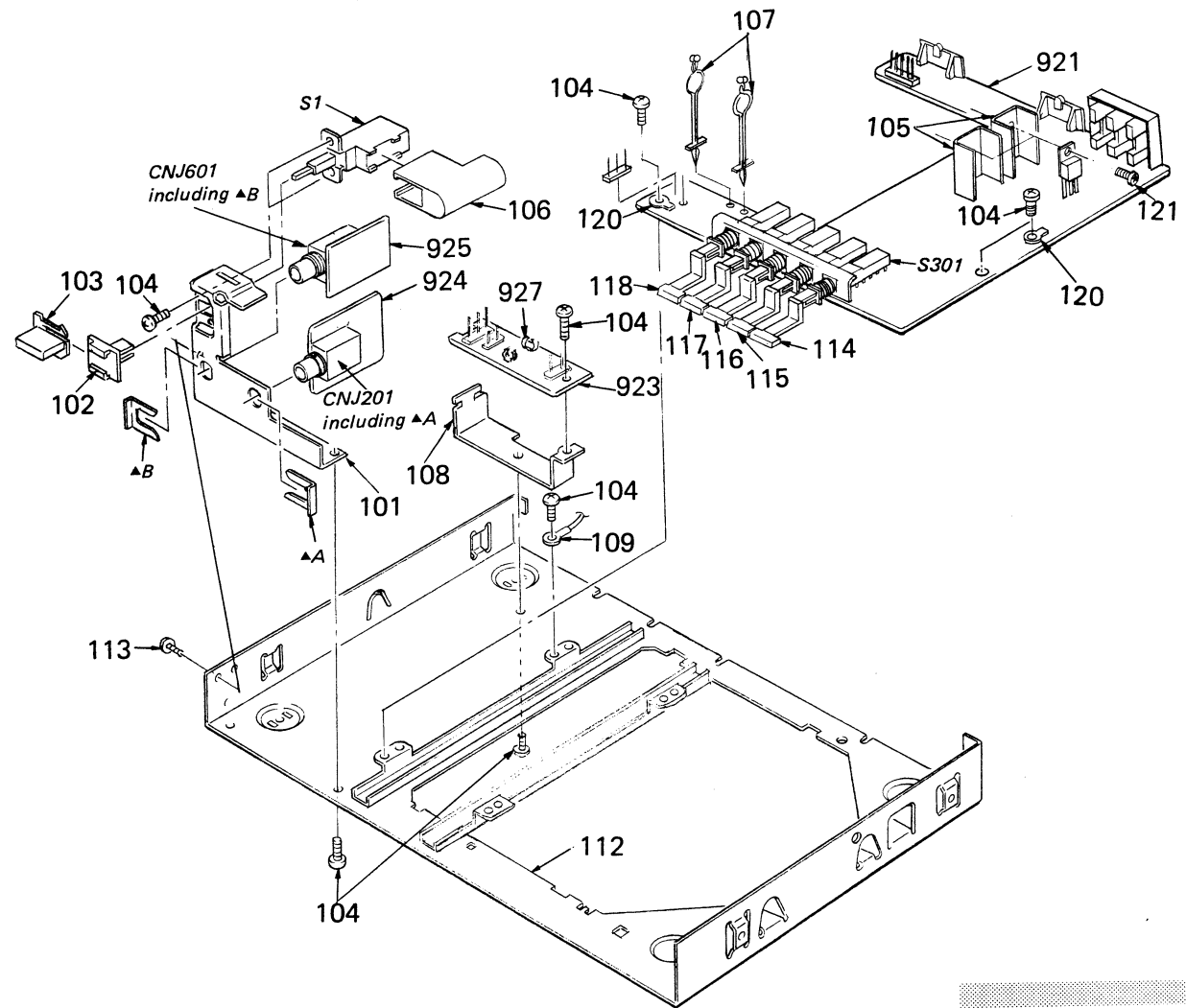



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks	No.	Part
51	4-912-128-01	KNOB, SLIDE		59	4-914-026-11	PLATE, VOL		101	*4-91
52	7-685-871-01	SCREW +BVTT 3X6 (S)		60	7-623-508-01	LUG 3MM		102	4-90
53	4-914-059-01	PLATE GROUND		61	X-4914-009-1	PANEL ASSY, FRONT		103	4-87
54	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S		62	*4-904-458-61	SHAFT		104	7-68
55	3-318-909-81	KNOB, PUSH		912	*A-4358-172-A	MOUNTED PCB, GRAPHIC EQUALIZER		105	*4-88
56	4-864-307-00	RING		RV401	1-237-200-11	RES, VAR, SLIDE (BLOCK TYPE)		106	3-57
57	4-902-815-11	KNOB, EQUALIZER		S401	1-570-632-11	SWITCH, PUSH (1 KEY)		107	*4-30
58	X-4914-008-1	KNOB ASSY, VOL						108	*4-90


(2)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	4-912-128-01	KNOB, SLIDE		59	4-914-026-11	PLATE, VOL	
52	7-685-871-01	SCREW +BVTT 3X6 (S)		60	7-623-508-01	LUG 3MM	
53	4-914-059-01	PLATE GROUND		61	X-4914-009-1	PANEL ASSY, FRONT	
54	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S		62	*4-904-458-61	SHAFT	
55	3-318-909-81	KNOB, PUSH		912	*A-4358-172-A	MOUNTED PCB, GRAPHIC EQUALIZER	
56	4-864-307-00	RING		RV401	1-237-200-11	RES, VAR, SLIDE (BLOCK TYPE)	
57	4-902-815-11	KNOB, EQUALIZER		S401	1-570-632-11	SWITCH, PUSH (1 KEY)	
58	X-4914-008-1	KNOB ASSY, VOL					



The components identified by shading and mark  are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	*4-914-016-01	BRACKET, SWITCH		117	4-914-039-31	KNOB (L), FUNCTION (TAPE)	
102	4-907-611-01	JOINT KNOB		118	4-914-039-41	KNOB (L), FUNCTION (VIDEO/AUX)	
103	4-875-466-00	KNOB POWER		120	4-870-539-00	PLATE, GROUND	
104	7-685-871-01	SCREW +BVTT 3X6 (S)		121	7-685-752-04	SCREW +BVTT 3X8 (S)	
105	*4-880-403-21	HEAT SINK		921	*A-4388-516-A	MOUNTED PCB, MAIN	
106	3-575-524-00	COVER, POWER SWITCH		923	*1-618-715-11	PC BOARD, FUSE	
107	*4-308-851-00	PURSE LOCK		924	*1-618-712-11	PC BOARD, MICROPHONE	
108	*4-902-812-01	HOLDER, FUSE PC BOARD		925	*1-618-713-11	PC BOARD, HEADPHONE	
109	7-623-508-01	LUG 3MM		927	1-533-183-11	HOLDER FUSE	
112	*X-4914-004-1	CHASSIS ASSY		CNJ201	1-563-347-11	JACK, LARGE TYPE	
113	7-682-545-04	SCREW +P 3X4		CNJ601	1-507-849-00	JACK, LARGE TYPE (HEADPHONES)	
114	4-914-039-01	KNOB (L), FUNCTION (PHONO)		S1	 1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY)	
115	4-914-039-11	KNOB (L), FUNCTION (TUNER)		S301	1-570-614-11	SWITCH, PUSH (5 KEY)	
116	4-914-039-21	KNOB (L), FUNCTION (CD)					

## SECTION 4 ELECTRICAL PARTS LIST

## NOTE:

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

## CAPACITORS:

MF:μF, PF:μμF.

## RESISTORS

- All resistors are in ohms.
- F : nonflammable

## COILS


- MMH : mH, UH : μH

## SEMICONDUCTORS

In each case, U : μ, for example:

UA...: μA..., UPA...: μPA..., UPC...: μPC,

UPD...: μPD...

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	★1-526-752-00	(E).....OUTLET, AC (2 GANG)
	★1-526-751-00	(UK).....OUTLET, AC
	★1-526-794-11	(AEP,G-AEP).....OUTLET, AC
902	★1-551-188-XX	(E).....CORD, POWER
	★1-534-817-XX	(AEP,G-AEP).....CORD, POWER
	★1-551-884-00	(UK).....CORD, POWER
903	★1-526-565-00	(E)....AC PLUG ADAPTOR
904	*1-618-717-11	PC BOARD, POWER IC (R)
905	*1-618-716-11	PC BOARD, POWER IC (L)
907	*1-618-714-11	PC BOARD, SPEAKER TERMINAL
912	*A-4358-172-A	MOUNTED PCB, GRAPHIC EQUALIZER
921	*A-4388-516-A	MOUNTED PCB, MAIN
923	*1-618-715-11	PC BOARD, FUSE
924	*1-618-712-11	PC BOARD, MICROPHONE
925	*1-618-713-11	PC BOARD, HEADPHONE
927	1-533-183-11	HOLDER FUSE
C1	★1-161-744-00	CERAMIC 0.01MF 400V
C101	1-123-612-00	ELECT 2.2MF 20% 50V
C102	1-162-282-31	(AEP,E,UK)...CERAMIC 100PF 10% 50V
C102	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C103	1-162-219-31	CERAMIC 68PF 5% 50V
C104	1-123-306-00	ELECT 47MF 20% 10V
C105	1-130-480-00	MYLAR 0.0056MF 5% 50V
C106	1-130-473-00	MYLAR 0.0015MF 5% 50V
C107	1-123-609-00	ELECT 0.33MF 20% 50V
C108	1-123-306-00	ELECT 47MF 20% 10V
C109	1-162-282-31	(G-AEP)...CERAMIC 100PF 10% 50V
C151	1-123-612-00	ELECT 2.2MF 20% 50V
C152	1-162-282-31	(AEP,E,UK)...CERAMIC 100PF 10% 50V
C152	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C153	1-162-219-31	CERAMIC 68PF 5% 50V
C154	1-123-306-00	ELECT 47MF 20% 10V
C155	1-130-480-00	MYLAR 0.0056MF 5% 50V
C156	1-130-473-00	MYLAR 0.0015MF 5% 50V
C157	1-123-609-00	ELECT 0.33MF 20% 50V
C158	1-123-306-00	ELECT 47MF 20% 10V
C159	1-162-282-31	(G-AEP)...CERAMIC 100PF 10% 50V
C201	1-123-609-00	ELECT 0.33MF 20% 50V
C202	1-162-294-31	CERAMIC 0.001MF 10% 50V
C203	1-123-822-00	ELECT 47MF 20% 10V
C204	1-123-609-00	ELECT 0.33MF 20% 50V
C205	1-162-303-31	CERAMIC 0.0033MF 30% 16V
C206	1-123-822-00	ELECT 47MF 20% 10V
C207	1-162-306-31	CERAMIC 0.01MF 30% 16V
C301	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V

## ELECTRICAL PARTS


Ref.No.	Part No.	Description
C302	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C351	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C352	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C401	1-123-611-00	ELECT 1MF 20% 50V
C403	1-123-612-00	ELECT 2.2MF 20% 50V
C404	1-136-160-00	FILM 0.039MF 5% 50V
C405	1-123-902-00	ELECT 0.68MF 20% 50V
C406	1-136-157-00	FILM 0.022MF 5% 50V
C407	1-123-608-00	ELECT 0.22MF 20% 50V
C408	1-136-153-00	FILM 0.01MF 5% 50V
C409	1-136-166-00	FILM 0.12MF 5% 50V
C410	1-130-478-00	MYLAR 0.0039MF 5% 50V
C411	1-136-163-00	FILM 0.068MF 5% 50V
C412	1-130-473-00	MYLAR 0.0015MF 5% 50V
C413	1-136-157-00	FILM 0.022MF 5% 50V
C414	1-162-293-31	CERAMIC 820PF 10% 50V
C415	1-136-153-00	FILM 0.01MF 5% 50V
C416	1-162-288-31	CERAMIC 330PF 10% 50V
C417	1-130-479-00	MYLAR 0.0047MF 5% 50V
C418	1-162-294-31	CERAMIC 0.001MF 10% 50V
C419	1-123-612-00	ELECT 2.2MF 20% 50V
C420	1-123-822-00	ELECT 47MF 20% 10V
C451	1-123-611-00	ELECT 1MF 20% 50V
C453	1-123-612-00	ELECT 2.2MF 20% 50V
C454	1-136-160-00	FILM 0.039MF 5% 50V
C455	1-123-902-00	ELECT 0.68MF 20% 50V
C456	1-136-157-00	FILM 0.022MF 5% 50V
C457	1-123-608-00	ELECT 0.22MF 20% 50V
C458	1-136-153-00	FILM 0.01MF 5% 50V
C459	1-136-166-00	FILM 0.12MF 5% 50V
C460	1-130-478-00	MYLAR 0.0039MF 5% 50V
C461	1-136-163-00	FILM 0.068MF 5% 50V
C462	1-130-473-00	MYLAR 0.0015MF 5% 50V
C463	1-136-157-00	FILM 0.022MF 5% 50V
C464	1-162-293-31	CERAMIC 820PF 10% 50V
C465	1-136-153-00	FILM 0.01MF 5% 50V
C466	1-162-288-31	CERAMIC 330PF 10% 50V
C467	1-130-479-00	MYLAR 0.0047MF 5% 50V
C468	1-162-294-31	CERAMIC 0.001MF 10% 50V
C469	1-123-612-00	ELECT 2.2MF 20% 50V
C470	1-123-822-00	ELECT 47MF 20% 10V
C601	1-123-380-00	ELECT 1MF 20% 50V
C602	1-161-315-00	CERAMIC 220PF 10% 50V
C603	1-124-443-00	ELECT 100MF 20% 10V
C604	1-161-323-00	CERAMIC 0.001MF 10% 50V

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
C605	1-161-271-00	CERAMIC 100PF 5% 50V
C608	1-161-053-00	CERAMIC 0.0015MF 30% 50V
C609	1-124-122-11	ELECT 100MF 20% 50V
C610	1-123-380-00	ELECT 1MF 20% 50V
C613	1-161-315-00	CERAMIC 220PF 10% 50V
C614	1-136-163-00	MYLAR 0.068MF 10% 50V
C615	1-136-163-00	MYLAR 0.068MF 10% 50V
C616	1-162-301-31	CERAMIC 0.0015MF 30% 50V
C619	1-130-483-00	MYLAR 0.01MF 5% 50V
C620	1-161-494-00	CERAMIC 0.022MF 30% 25V
C621	1-161-325-00	(G-AEP)...CERAMIC 0.0015MF 30% 50V
C622	1-161-494-00	(G-AEP)...CERAMIC 0.022MF 30% 25V
C623	1-161-494-00	(G-AEP)...CERAMIC 0.022MF 30% 25V
C624	1-161-259-00	CERAMIC 10PF 5% 50V
C651	1-123-380-00	ELECT 1MF 20% 50V
C652	1-161-315-00	CERAMIC 220PF 10% 50V
C653	1-124-443-00	ELECT 100MF 20% 10V
C654	1-161-323-00	CERAMIC 0.001MF 10% 50V
C655	1-161-271-00	CERAMIC 100PF 5% 50V
C658	1-161-053-00	CERAMIC 0.0015MF 30% 50V
C659	1-124-122-11	ELECT 100MF 20% 50V
C660	1-123-380-00	ELECT 1MF 20% 50V
C663	1-161-315-00	CERAMIC 220PF 10% 50V
C664	1-136-163-00	MYLAR 0.068MF 10% 50V
C665	1-136-163-00	MYLAR 0.068MF 10% 50V
C669	1-130-483-00	MYLAR 0.01MF 5% 50V
C670	1-161-494-00	CERAMIC 0.022MF 30% 25V
C671	1-161-325-00	(G-AEP)...CERAMIC 0.0015MF 10% 50V
C672	1-161-494-00	(G-AEP)...CERAMIC 0.022MF 30% 25V
C673	1-161-494-00	(G-AEP)...CERAMIC 0.022MF 30% 25V
C674	1-161-259-00	CERAMIC 10PF 5% 50V
C801	1-123-308-00	ELECT 220MF 20% 6.3V
C802	1-123-308-00	ELECT 220MF 20% 6.3V
C803	1-123-356-00	ELECT 10MF 20% 50V
C804	1-123-307-00	ELECT 100MF 20% 6.3V
C901	1-124-030-00	ELECT 6800MF 20% 42V
C902	1-124-030-00	ELECT 6800MF 20% 42V
C903	1-123-333-00	ELECT 100MF 20% 16V
C904	1-123-333-00	ELECT 100MF 20% 16V
C905	1-102-394-00	CERAMIC 0.01MF 250V
C906	1-123-306-00	ELECT 47MF 20% 10V
C907	1-123-306-00	ELECT 47MF 20% 10V
C908	1-123-359-00	ELECT 47MF 20% 50V
C909	1-123-356-00	ELECT 10MF 20% 50V
C910	1-123-359-00	ELECT 47MF 20% 50V
C911	1-161-328-11	(G-AEP)...CERAMIC 0.0047MF 30% 50V
C912	1-161-328-11	(G-AEP)...CERAMIC 0.0047MF 30% 50V
CN401	*1-563-251-11	SOCKET, CONNECTOR 12P
CN451	*1-563-152-11	SOCKET, CONNECTOR 10P
CNJ101	1-507-911-11	JACK, PIN 6P
CNJ201	1-563-347-11	JACK, LARGE TYPE
CNJ301	1-562-068-13	SOCKET, CONNECTOR 13P
CNJ601	1-507-849-00	JACK, LARGE TYPE (HEADPHONES)
CNJ901	1-562-068-13	SOCKET, CONNECTOR 13P
D701	8-719-302-16	DIODE SEL1813A-C-TP2
D702	8-719-302-16	DIODE SEL1813A-C-TP2
D703	8-719-302-16	DIODE SEL1813A-C-TP2

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
D704	8-719-302-16	DIODE SEL1813A-C-TP2
D705	8-719-302-16	DIODE SEL1813A-C-TP2
D801	8-719-107-57	DIODE 1S953-7
D802	8-719-107-57	DIODE 1S953-7
D803	8-719-107-94	DIODE 1SS202-1
D804	8-719-107-94	DIODE 1SS202-1
D805	8-719-200-77	DIODE 10E2-N
D851	8-719-107-57	DIODE 1S953-7
D901	7-719-910-13	DIODE HZ11A3L
D902	7-719-910-13	DIODE HZ11A3L
D903	8-719-302-38	DIODE RBV-602-01
D904	8-719-200-77	DIODE 10E2-N
D905	8-719-200-77	DIODE 10E2-N
F1	1-532-259-00	FUSE, TIME-LAG T1.6A
F2	1-532-259-00	FUSE, TIME-LAG T1.6A
IC101	8-759-923-97	IC BA4561
IC401	8-759-923-97	IC BA4561
IC402	8-759-802-54	IC LA3605
IC452	8-759-802-54	IC LA3605
IC601	8-749-900-12	(AEP,G-AEP,UK)...IC STK4034MK-10
IC601	8-749-900-13	(E)...IC STK4028MK-10
IC651	8-749-900-12	(AEP,G-AEP,UK)...IC STK4034MK-10
IC651	8-749-900-13	(E)...IC STK4028MK-10
IC801	8-759-101-23	IC UPC1237H
J201	*1-562-249-00	SOCKET, CONNECTOR 4P
J202	*1-562-249-00	SOCKET, CONNECTOR 4P
J706	*1-562-250-00	SOCKET, CONNECTOR 5P
J707	*1-562-251-00	SOCKET, CONNECTOR 6P
J701	*1-562-327-00	SOCKET, CONNECTOR 3P
J704	*1-562-327-00	SOCKET, CONNECTOR 3P
J702	*1-562-328-00	SOCKET, CONNECTOR 7P
J703	*1-562-328-00	SOCKET, CONNECTOR 7P
J705	*1-562-328-00	SOCKET, CONNECTOR 7P
L601	*1-420-872-00	COIL, AIR CORE 1.9UH
L651	*1-420-872-00	COIL, AIR CORE 1.9UH
PS901	1-532-686-00	LINK, IC
PS902	1-532-686-00	LINK, IC
PS903	1-532-686-00	LINK, IC
PT	1-448-483-11	(E).....TRANSFORMER, POWER
PT	1-448-482-11	(AEP,G-AEP,UK)...TRANSFORMER, POWER
Q201	8-729-606-33	TRANSISTOR 2SC2603F
Q801	8-729-108-05	TRANSISTOR 2SC1841PA
Q802	8-729-900-36	TRANSISTOR DTA124ES-DP
Q851	8-729-108-05	TRANSISTOR 2SC1841PA
Q901	8-729-107-25	TRANSISTOR 2SD1585-L
Q902	8-729-111-67	TRANSISTOR 2SB1094-L
R101	1-249-441-11	CARBON 100K 5% 1/6W
R102	1-249-417-11	CARBON 1K 5% 1/6W
R103	1-249-441-11	CARBON 100K 5% 1/6W
R104	1-247-829-00	CARBON 820 5% 1/6W
R105	1-247-897-00	CARBON 560K 5% 1/6W
R106	1-249-437-11	CARBON 47K 5% 1/6W
R107	1-247-815-00	CARBON 220 5% 1/6W
R108	1-249-441-11	CARBON 100K 5% 1/6W
R109	1-247-704-11	CARBON 220 5% 1/4W
R110	1-247-829-81	(G-AEP)...CARBON 820 5% 1/6W

The components identified by shading and mark  are critical for safety. Replace only with part number specified.




## ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R151	1-249-441-11	CARBON	100K	5%	1/6W
R152	1-249-417-11	CARBON	1K	5%	1/6W
R153	1-249-441-11	CARBON	100K	5%	1/6W
R154	1-247-829-00	CARBON	820	5%	1/6W
R155	1-247-897-00	CARBON	560K	5%	1/6W
R156	1-249-437-11	CARBON	47K	5%	1/6W
R157	1-247-815-00	CARBON	220	5%	1/6W
R158	1-249-441-11	CARBON	100K	5%	1/6W
R159	1-247-704-11	CARBON	220	5%	1/4W
R160	1-247-829-81	(G-AEP)...CARBON	820	5%	1/6W
R201	1-249-441-11	CARBON	100K	5%	1/6W
R202	1-249-441-11	CARBON	100K	5%	1/6W
R203	1-249-417-11	CARBON	1K	5%	1/6W
R204	1-247-849-00	CARBON	5.6K	5%	1/6W
R205	1-247-859-00	CARBON	15K	5%	1/6W
R206	1-249-441-11	CARBON	100K	5%	1/6W
R207	1-249-421-11	CARBON	2.2K	5%	1/6W
R208	1-249-417-11	CARBON	1K	5%	1/6W
R301	1-249-417-11	CARBON	1K	5%	1/6W
R302	1-249-417-11	CARBON	1K	5%	1/6W
R303	1-247-887-00	CARBON	470	5%	1/6W
R351	1-249-417-11	CARBON	1K	5%	1/6W
R352	1-249-417-11	CARBON	1K	5%	1/6W
R353	1-247-823-00	CARBON	470	5%	1/6W
R401	1-247-887-00	CARBON	220K	5%	1/6W
R402	1-249-417-11	CARBON	1K	5%	1/6W
R403	1-247-887-00	CARBON	220K	5%	1/6W
R404	1-249-441-11	CARBON	100K	5%	1/6W
R405	1-249-425-11	CARBON	4.7K	5%	1/6W
R406	1-249-441-11	CARBON	100K	5%	1/6W
R407	1-247-109-00	CARBON	120	5%	1/4W
R408	1-247-708-11	CARBON	470	5%	1/4W
R409	1-247-823-00	CARBON	470	5%	1/6W
R451	1-247-887-00	CARBON	220K	5%	1/6W
R452	1-249-417-11	CARBON	1K	5%	1/6W
R453	1-247-887-00	CARBON	220K	5%	1/6W
R454	1-249-441-11	CARBON	100K	5%	1/6W
R455	1-249-425-11	CARBON	4.7K	5%	1/6W
R456	1-249-441-11	CARBON	100K	5%	1/6W
R457	1-247-109-00	CARBON	120	5%	1/4W
R459	1-247-823-00	CARBON	470	5%	1/6W
R601	1-247-713-11	CARBON	1K	5%	1/4W
R602	1-247-173-00	CARBON	56K	5%	1/4W
R603	1-247-125-00	CARBON	560	5%	1/4W
R604	1-247-173-00	CARBON	56K	5%	1/4W
R605	1-247-149-00	CARBON	5.6K	5%	1/4W
R606	1-247-713-11	CARBON	1K	5%	1/4W
R607	1-247-700-11	CARBON	100	5%	1/4W F
R608	1-247-192-00	CARBON	10	5%	1/2W
R609	1-247-192-00	CARBON	10	5%	1/2W F
R651	1-247-713-11	CARBON	1K	5%	1/4W
R652	1-247-173-00	CARBON	56K	5%	1/4W
R653	1-247-125-00	CARBON	560	5%	1/4W
R654	1-247-173-00	CARBON	56K	5%	1/4W
R655	1-247-149-00	CARBON	5.6K	5%	1/4W
R656	1-247-713-11	CARBON	1K	5%	1/4W
R657	1-247-700-11	CARBON	100	5%	1/4W F
R658	1-247-192-00	CARBON	10	5%	1/2W

## ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R659	1-247-192-00	CARBON	10	5%	1/2W F
R801	1-247-173-00	CARBON	56K	5%	1/4W
R802	1-247-713-11	CARBON	1K	5%	1/4W
R803	1-249-460-11	CARBON	15K	5%	1/4W
R804	1-249-469-11	CARBON	100K	5%	1/4W
R805	1-217-156-00	RES, METAL PLATE 0.22	5W		F
R806	1-249-429-11	CARBON	10K	5%	1/6W
R807	1-249-441-11	CARBON	100K	5%	1/6W
R808	1-247-873-00	CARBON	56K	5%	1/6W
R809	1-247-153-00	CARBON	8.2K	5%	1/4W
R810	1-249-460-11	CARBON	15K	5%	1/4W
R811	1-247-751-11	CARBON	820	5%	1/2W
R812	1-247-751-11	CARBON	820	5%	1/2W
R851	1-247-173-00	CARBON	56K	5%	1/4W
R852	1-247-713-11	CARBON	1K	5%	1/4W
R853	1-249-460-11	CARBON	15K	5%	1/4W
R854	1-249-469-11	CARBON	100K	5%	1/4W
R855	1-217-156-00	RES, METAL PLATE 0.22	5W		F
R901	1-217-387-00	FUSIBLE	10	5%	1/4W F
R902	1-217-387-00	FUSIBLE	10	5%	1/4W F
R903	1-247-719-11	CARBON	3.3K	5%	1/4W
R904	1-247-719-11	CARBON	3.3K	5%	1/4W
R905	1-247-256-00	CARBON	4.7K	5%	1/2W
R906	1-247-256-00	CARBON	4.7K	5%	1/2W
R907	1-247-256-00	CARBON	4.7K	5%	1/2W
R908	1-247-252-00	CARBON	3.3K	5%	1/2W
R909	1-247-252-00	CARBON	3.3K	5%	1/2W
RV201	1-230-732-11	RES, VAR, SLIDE 100K/100K (MIC MIXING)			
RV401	1-237-200-11	RES, VAR, SLIDE (BLOCK TYPE)			
RV501	1-237-201-11	RES, VAR, SLIDE 100K/100K (BALANCE)			
RV502	1-237-162-11	RES, VAR, SLIDE 100K/100K (VOLUME)			
RY801	1-515-501-00	RELAY			
S1	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)			
S301	1-570-614-11	SWITCH, PUSH (5 KEY)			
S401	1-570-632-11	SWITCH, PUSH (1 KEY)			
SV	1-526-576-51	(E)..... SELECTOR, POWER VOLTAGE			
TM601	1-536-705-21	TERMINAL BOARD (SP)			

The components identified by shading and mark  are critical for safety. Replace only with part number specified.